

**U.S. Coral Reef Task Force  
Award Recipients  
Republic of Palau  
November 2005**

**Outstanding Scientific Advancement of Knowledge**

**Dr. James Maragos**

Dr. James Maragos is the Senior Coral Reef Biologist and Dive Officer at the Pacific/Remote Islands National Wildlife Refuge Complex, U.S. Fish and Wildlife Service, Honolulu, Hawai'i. He began studying coral reefs as a University of Hawaii doctoral candidate in 1968. Throughout his 35-year career, Dr. Maragos has focused on the inventory, monitoring, protection, and restoration of coral reefs in the Pacific and has served as the Hawaii-central Pacific field specialist in coral taxonomy and biodiversity, compiling records, guides, and photos of corals for thousands of reefs throughout Oceania. Since 1999, Dr. Maragos has established a long term monitoring program for more than 90 Hawaiian and Pacific reef sites. More recently, Dr. Maragos has helped initiate important assessment and monitoring of reefs damaged by ship groundings, leading to reef recovery or compensation to affected communities and agencies.

**Dr. Charles Birkeland**

Dr. Charles Birkeland is Assistant Leader, Hawaii Cooperative Fishery Research Institute, and Adjunct Associate Professor, Department of Zoology, University of Hawaii. He was a post-doc at the Smithsonian Tropical Research Institute (1970-1975) and a professor at the University of Guam Marine Laboratory (1975-2000) before moving to Hawaii. He was also the third President of the International Society of Reef Studies. Throughout his career, he has focused on coral reef communities, aspects of reef recovery and resilience, and how best to manage these resources. He is focusing his research on biological characteristics and life histories of coral-reef species, as well as on the nature of ecosystem processes of coral reefs, to examine whether Marine Protected Areas affect these various ecosystem processes.

**Dr. Patrick Colin**

Dr. Patrick Colin is President of the Coral Reef Research Foundation, a non-profit organization, and has won the coveted National Cancer Institute marine collections program contract. He received a Ph.D. from the University of Miami, RSMAS, in 1973 while working on the biology of western Atlantic reef fishes. In 1979, he moved to the Marshall Islands as Senior Scientist for the Mid-Pacific Research Laboratory at Enewetak Atoll (University of Hawaii). In 1983, he took a position operating the Motupore Island Research Station for the University of Papua New Guinea and in 1987 moved to the Caribbean Marine Research Center to investigate grouper spawning aggregations in the Bahamas. He has lived and worked in Puerto Rico, the Marshall Islands, Papua New Guinea, the Federated States of Micronesia and more recently, Palau. His work has taken him to tropical reef areas around the world and encompasses a wide range of topics,

ranging from the taxonomy and reproductive biology of reef fishes to the relationships between sediments and organisms.

## **Outstanding Public Awareness and Education**

### **Coral Reef Outreach Network**

Founded in 2001, the Coral Reef Outreach Network is an unprecedented public awareness partnership that crosses sectors and agendas to unite Hawai'i's conservation community around integrated coral reef outreach and education. The consortium, which includes over 40 state and federal agencies and non-governmental partners, is one of the most active and successful collaborative outreach networks anywhere in the country; it is also one of the first and largest such networks at the state level and is continuously growing through a policy of 100 percent inclusion.

The Living Reef Program, one of the Network's key initiatives, is a unified communications effort based on approximately 18 months of research and collaboration. The goal of Hawaii's Living Reef program is to raise public awareness of the importance and interconnectedness of the coral reef ecosystem to Hawai'i's lifestyle and to teach and encourage positive behaviors that will protect and nurture this life-giving natural resource. Through the collaborative development of key messages, multimedia products and innovative distribution strategies, the campaign minimizes duplication and dilution, maximizes resources, and uses consistent messages to reach a much larger audience than would be possible through any one organization. Recent successes include the development of an annual Living Reef Awards program (with over 250 attendees in 2005 and awards donated by Tiffany and Company Jewelers); production of a reef etiquette video for hotel rooms, cruise ships and airlines; and the development of a public service announcement campaign featuring billboards as well as radio and TV spots.

### **Division of Fish and Wildlife Protection**

The Division of Fish and Wildlife Protection for the Republic of Palau was established within the Ministry of Justice in 2001. The Division is responsible for enforcement of all National domestic fishing laws. In addition, the Division staff enforce National legislation related to non-marine species such as the Micronesian pigeon (*Ducula oceanica*) and perform conservation activities such as tree plantings and area cleanups.

To improve cooperation and coordination between National and State authorities, the Ministry of Justice has entered into a memorandum of understanding with State officers in Ngarchelong, Kayangel and Hatohobei States, authorizing these officers to enforce National Law. In May 2002 the Minister of Justice and Ngarchelong State signed an MOU that allows the sharing of a National boat with Ngarchelong State authorities. The Ministry of Justice is continuing to seek ways to improve coordinated enforcement efforts with State authorities. The Division employs nine officers, all former fishermen. Kammen M. Chin, who is located in Koror, serves as the Chief.

### **Palau Conservation Society**

Incorporated in 1994, the Palau Conservation Society (PCS) is Palau's first local non-profit organization dedicated to the conservation of the nation's biodiversity and natural resources. Since its inception, the Palau Conservation Society has been a leader in the conservation of Palau's environment. Dedicated to the protection of biodiversity, Palau's

natural resources, and to the local communities that use those resources, PCS supports the establishment and management of conservation areas, the development of sustainable resource use policies, and an increase in environmental awareness. The mission of PCS is “to work with the community to preserve the nation’s unique natural environment and perpetuate its conservation ethic for the economic and social benefit of present and future generations of all Palauans and for the enjoyment and education of all.” All of PCS’ education, research, and management activities have the ultimate goal of contributing to sustainable development policies at the national and state levels.

## **Outstanding Community Level Participation**

### **Biosphere Reserves: UNESCO’s Man and the Biosphere (MAB) Programme** **Alma Ridep-Morris & Andy George**

On June 29, 2005, 2 sites in Micronesia became the first two Biosphere Reserves in the Pacific Region to be designated in UNESCO’s Man and the Biosphere (MAB) Programme: the Ngaremeduu Biosphere Reserve in Palau and the Utwe Biosphere Reserve in Kosrae. The biosphere reserve network was launched in 1976 and is a key component in MAB's objective of achieving a sustainable balance between the sometimes-conflicting goals of conserving biological diversity, promoting economic development, and maintaining associated cultural values. Biosphere reserves are sites where this objective is tested, refined, demonstrated and implemented.

With significant leadership from Alma Ridep-Morris, the Program Manager of the Marine Conservation and Protected Areas Program, of the Palau Bureau of Marine Resources, and Andy George, the Executive Director of the Kosrae Conservation and Safety Organization, the communities of Ngaremeduu and Kosrae went through the lengthy process of nominating their respective sites and securing approval of these prestigious designations.

#### **Alma Ridep-Morris**

The Ngaremeduu Biosphere Reserve effort was launched in the mid 90's by Alma and her colleagues at the Palau Bureau of Marine Resources. In the early 1990's, Alma was appointed the Conservation Area Support Officer for the project site, which encompasses three sites and represents the largest freshwater estuary in Micronesia. Alma worked with local traditional, government, and women's leaders in the three states to build community support for the protection of the area. She acted as coordinator of a steering committee representing the three States. When the Compact Road was approved in 1994, the Ngaremeduu Bay area was put forth by the Palau Government as a conservation set-aside along with Lake Ngardok. Alma has continued her involvement in the Ngaremeduu Biosphere Reserve and worked with members of three states in Palau to prepare the nomination and get agreement by the State leaders to put the site forward as Palau's first UNESCO-approved biosphere Reserve.

### **Andy George**

As Executive Director of the Kosrae Conservation and Safety Organization, Andy took on the Utwe-Walung Marine Park as one of his first projects. The park, a concept that was nearly ten years old when he got involved in 2004, had never been legally designated and did not have much support from the local community. Beginning in early 2004, Andy developed a highly participatory community education and planning program for the Utwe community. This program resulted in very high community support for the establishment of a marine protected area within the proposed park boundaries, Kosrae's first. The community leaders then helped Andy and his staff put the site forward as the FSM's first UNESCO-approved Biosphere Reserve. The process that Andy developed is now being copied in other sites in Kosrae to start moving towards a State-wide protected area system.

The Utwe Biosphere Reserve has a high level of biodiversity, with tropical rain forests, mangrove forest, sea grass beds and coral reefs. The nomination was prepared by Kosrae State communities, which have a long tradition of natural resource conservation through customary laws.

### **Yimang Golbuu and Steven Victor**

Yimnang Golbuu and Steven Victor have made substantial contributions to improving our knowledge of coral reef conservation in Micronesia. They both performed important research on recruitment processes in coral planula larvae. Yim studied settlement preferences in coral larvae and was among the first to demonstrate the importance of substratum quality in coral reef integrity. Steven built on Yim's work by demonstrating the effects of heavy metals on fertilization rates in spawning corals, as well as the longer-term effects on subsequent coral recruitment. Both studies are considered seminal research in coral reef ecology. Their recent research has expanded into the effects of land-based sources of pollution and sedimentation on coastal coral reef ecosystems of Micronesia.

Yim and Steven serve as co-Chief Scientists at the Palau International Coral Reef Center, where they have continued their research on corals and coral reef health, and provide research leadership as well as serve key capacity-development roles by teaching other researchers in Micronesia how to measure the effects of watershed based discharges on coastal coral reefs.

In addition to their contributions at the regional and international level, Yim and Steven were responsible for one of the most notable examples of translating research into policy development and implementation. Following a period of data collection, these two researchers developed a presentation in the Palauan language for the chiefs and fishermen from a nearby village that tied coral reef and fisheries losses to destruction of the coastal mangroves fringing the bay. In a traditional village meeting house, using PowerPoint, they explained what was happening due to the clearing and grading activities, demonstrated the level of coral reef and fisheries losses, and made a number of recommendations. Within 6 weeks of this presentation, the Airai State government

implemented a moratorium on cutting and filling the mangroves, which is still in place over 2 years later. Subsequently, national legislation has been introduced to address mangrove protection. Yim is presently pursuing his Ph.D and, if successful, he will hold Palau's first Ph.D. in this area of expertise.

Yim and Steven exemplify how researchers can apply their findings to address critical issues in coral reef protection and regional capacity development for the future.

### **TNC – Micronesia**

The Nature Conservancy- Micronesia Program started collaborating in the region in 1990, focusing in Palau and the Federated States of Micronesia. Working with local people and initiatives over the last decade, TNC has helped support growth in local conservation groups, worked effectively with local communities who are actively conserving and managing their own resources, and partnered with governments who are increasingly committed to taking up the conservation challenge.

During this time, work by TNC and its local partners on watershed protection across the island of Pohnpei and the development of marine protected areas in Palau have become models for neighboring islands. Marine research now underway in Palau on reef fish spawning aggregations, coral bleaching impacts and resilience, and marine protected area network design will have ramifications throughout the tropics. Palau is the number one priority for a global initiative to develop nationwide networks of marine protected areas that are resistant and resilient to the impacts of climate change.

Over the next five years, the Conservancy will focus on the five island groups of Micronesia with close, historic affiliation with the United States: Palau, Federated States of Micronesia, the Marshall Islands, the Northern Marianas, and Guam. By expanding its focus across Micronesia, the TNC- Micronesia Program will help to ensure that regional marine and terrestrial biodiversity needs are considered when setting priorities for conservation action.

## **Outstanding Management**

### **Republic of Palau**

The Republic of Palau has initiated the establishment of a nationwide Protected Areas Network (PAN). The "Protected Areas Network Act" was signed into law on November 26, 2003. The purpose of the Act is to establish a nationwide network of resilient marine and terrestrial protected areas that will allow the national government to assist states in the protection of significant areas of biodiversity, important habitats and other valuable resources that are essential to the future stability and health of Palau. It has the dual objectives of protecting Palau's unique biodiversity as well as supporting the states and communities to more effectively manage and protect their natural resources.

Palau was one of the first nations in the world to formalize through national law a national protected area network which fully applies the concepts of coral reef resilience and effective management. Most importantly, the PAN builds on existing initiatives and protected areas, involves full collaboration with the states and communities, and serves as an inspirational model for the rest of the world's small island developing states.

### **Athline Clark**

Athline Clark has contributed significantly to the sustained health of Hawaii's coral reef ecosystems through her management role in Hawaii's Division of Aquatic Resources. Through her work with the All Islands Committee and her efforts on the Education and Outreach Working Group, she has also contributed to the efforts of all of the jurisdictions on the USCRTF. Both of these roles have involved partnership building, collaboration, and organizational skills that have resulted in overall coral reef management improvements at the local, regional, and federal levels.

In Hawaii, Athline has played a major role in coordinating groups of scientists and managers to address Hawaii's coral reef management issues. This has included facilitating a coral advisory committee to develop and manage coral reef grant proposals that identify Hawaii's priority issues. Additionally, Athline played an instrumental role in carrying out the USCRTF Puerto Rico resolution to develop three year local action strategies. Finally, Athline has fulfilled the position as the chair of the State Advisory Group for the Coastal States Organization & National MPA Center to assist in the developmental process of a national system of marine protected areas.

## **Coral Champion**

### **Noah Idechong**

Noah shows extraordinary leadership and dedication to conservation of coastal and marine resources now and for future generations. Noah has been one of the most powerful and effective influences for coral reef protection in the Pacific for decades. He is the recipient of the Goldman Prize for Environmental Achievement, a Pew Fellowship in Marine Conservation, and was one of the "8 Heroes of the Earth" in Time Magazine's 2000 Earthweek Issue. Noah has been able to bring together scientists together to focus on key data gaps, managers to address how people interact with their resources; regional leaders, both traditional and elected, to address policy needs; and the broader community to accept their responsibilities in wise stewardship.